

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT #TRD2282-02**

**Permitting and Compliance Division
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**Luzenac America, Inc.
Three Forks Mill
2150 Bench Road
Three Forks, MT 59752**

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Method 5 and Method 9 As Required by the Department
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semi-annual Reporting Required	X		Annual and Semi- annual
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Preconstruction Permitting	X		Permit #2282-11
New Source Performance Standards (NSPS)	X		40 CFR 60, Subpart OOO and Subpart UUU
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR)	X		
Prevention of Significant Deterioration (PSD)	X		Review performed in 1982, while under Cyprus Industrial Minerals Company, Permit #1703
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
State Implementation Plan (SIP)	X		General SIP

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The EPA and the public intend the document for reference during review of the proposed permit. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Luzenac America, Inc., (Luzenac) on March 19, 1996; additional submittals received on September 5, 1998; April 14, 1999; July 21, 1999; and November 18, 1999; the application for a significant modification to Operating Permit #OP2282-00 submitted on October 18, 2002; the application for permit renewal submitted on November 19, 2004; and the current request for an administrative amendment submitted on February 13, 2007.

B. Facility Location

The Three Forks Mill is located on Bench Road, which is just south of the town of Three Forks, Montana. The legal description of the site is in the northwest ¼ of Section 36, Township 2 North, Range 1 East, Gallatin County.

C. Facility Background Information

Montana Air Quality Permit History

Permit #**142-080270** was issued to United Sierra Division, Cyprus Mines Corporation on June 3, 1970, for two bag type dust collectors.

Permit #**188-090670** was issued to United Sierra Division on June 8, 1970, for the reject processing Bauer Mill with Flex-Kleen Model 84FK-80 dust collector.

Permit #**673-121973** was issued to United Sierra Division on September 19, 1973, for the talc plant modernization and expansion.

Permit #**1519** was issued on November 13, 1980, to Cyprus Industrial Minerals Company for a Mikro Pulsaire Dust Collector and Bin Vent Collector. The permit also covered CMV Silo #1, CMV Silo #2, JS-30 Classifier #1, JS-30 Classifier #2, Reclaiming Material Dust Collector, Bulk Loading-Trucks and Bulk Loading-Railcars. This permit application identified information on 3 dust collectors (letter dated August 21, 1980). Review indicates that a number of these dust collectors were constructed in 1974 as part of the plant modernization and expansion. Some of the dust collectors were constructed prior to 1974.

Permit #**1703** was issued on August 3, 1982, and modified on November 22, 1983. The permit was issued to Cyprus Industrial Minerals Company for the #1 and #2 ACM Mills, ACM 50-Ton Feed Bin #1, ACM 50 Tons Feed Bin #2, and one major dust collector. The original permit application included nine Vertical Mills, plus related dust collectors, bin vents, and silos; but, on December 14, 1982, the Department of Health – Air Quality Division was notified by Cyprus that the construction project had changed.

Permit #**2282** was issued on June 19, 1986, to Cyprus Industrial Minerals Company for a new Rail Loadout and Rotary Dryer.

On January 22, 1993, Luzenac requested a name change. On July 1, 1992, Luzenac America, Inc., purchased all properties in Montana previously owned by Cyprus Minerals Company.

Permit **#2282-01** was issued on September 13, 1994, to allow Luzenac to construct and operate the following equipment:

- a. Roller Mill Storage Bin #1 -V1551
- b. Roller Mill Storage Bin #2 -V1552
- c. Roller Mill Storage Bin #3 -V1553
- d. MV Storage Bin #1 -V1501
- e. MV Storage Bin #2 -V1502
- f. MV Storage Bin #3 -V1503
- g. Roller Mill Packer bin -V1554
- h. Roller Mill Packers (3)
- i. CMV Packer Bin -V1594
- j. CMV Packers (3)
- k. MV Packer Bin -V1504
- l. MV Packers (4)
- m. CMV Transfer Conveyor and Bucket Elevator
- n. Packaging Room Fugitive dust Control
- o. Packaging Conveyors
- p. Palletizer

This new, automated packaging equipment, related feed bins, dust collectors, and fans were used for the filling and palletizing of 50-pound bags of talc. This equipment was to be used instead of the existing packaging equipment, which had been in operation since the early 1970s. The existing equipment was not removed, but Luzenac did not plan to use it on a regular basis at that time. The change to the packaging system did not affect the production capacity of the plant.

The new automated packaging equipment handled three types of product; Mistron Vapor (fine grind), compacted Mistron Vapor (pelletized), and Roller Mill (coarse grind). Only one system, or product type, can be operated at a given time with the automatic palletizing line. The emissions from the automatic packaging equipment were calculated at 14.26 ton/yr. The permit review was based on all the equipment operating at the same time for modeling purposes.

The discharge from DC#1520, DC#1590, DC#1584, and DC#1570 is directed back into the packaging room during the winter months to help conserve heating costs. The discharge is ducted to the atmosphere during the summer months. The stack emissions limitations apply at all times and the method of compliance remained the same. The method of compliance with the visible emissions is Method 9 (7% opacity) when the discharge is to atmosphere and Method 22 (0% opacity) when the discharge is directed back into the packaging room. The other discharges are to atmosphere at all times.

The material collected from all of the baghouses will be put back into the process at various points.

Permit **#2282-02** was issued on October 16, 1994, to construct and install a new 66" Roller Mill feed Bin and 66" Roller Mill System, along with associated fabric filters. Silos #4, #5, #6, and #7, installed in 1983, 1986, 1986, and 1986, respectively, were also permitted.

Permit **#2282-03** was issued on July 3, 1995. Luzenac proposed to add a third ACM Mill, Feed Bin, and related fabric filter controls to the operation to increase the process rate through the Roller Mill System. Also included in this permitting action was the replacement of existing equipment on the #3 Vacuum Cleanup System. Specifically, a portable HiVack unit was replaced with a MikroPul Reverse Pulse Jet dust collector. This system collects spillage throughout the plant.

Permit **#2282-04** was issued on September 5, 1998. Luzenac proposed a Product Classifier circuit that consists of a 30-inch air classifier, dust collection system, and two pneumatic conveying system to transport coarse and fine cut powder from the classifier to existing packaging or processing systems. The project also included converting the existing Semi-bulk Bag Fill Bin into the Classifier Feed Bin and changing the baghouse used for the primary and secondary crushers into the baghouse for the Product Classifier. To control emissions from the primary and secondary crusher a new baghouse installation was proposed.

This permit alteration was required because the Potential to Emit (PTE) for the new Product Classifier was greater than 15 tons per year. The activities involving the conversion of the Semi-bulk Bag Fill Bin and using a new baghouse on the crushers did not require a permit. The Semi-bulk Bag Fill Bin conversion would not result in an increase in emissions. A baghouse is not required by permit on the crushers; therefore, changing the control equipment on the crushers did not trigger permitting requirements.

The allowable emission from the Product Classifier will result in an emission increase of 3.82 tons per year of particulate matter less than 10 microns (PM-10). The Product Classifier is a 40 CFR 60, Subpart OOO affected facility. Testing and reporting requirements for Subpart OOO were included in the permit. Permit #2282-04 replaced Permit #2282-03.

Permit **#2282-05** was issued on April 14, 1999. Luzenac proposed installation of a new coating system, new storage facilities, and new packaging system. The new coating and packaging systems are to be installed in the former old packaging area of the mill. The new silos are to be constructed immediately to the south of the existing silos.

Talc will be coated with Amino-Silane in the coating system. Equipment in the coating system included the FEM Holding Tank, Coating System Feed Bin, Loss-in-Weight Feeder, Turbulizer, and Ward Mill. Particulate emissions from the coating system are to be controlled by a baghouse. Amino-Silane will be pumped into the turbulizer and mixed with talc. After the coating process, the material will be pneumatically conveyed to storage silos CB Tank #1 [now referred to as the Coated Holding Tank] and CB Tank #2. Particulate emissions will be controlled by a baghouse on each tank. VOC emissions from the coating process will occur primarily in the CB Tanks. The Amino-Silane is limited to 62.45 tons per year. This process limit results in VOC emission of 39.0 tons per year.

Talc will be pneumatically conveyed to the new coated product packaging system directly from the existing FEM 1 and 2 systems, from CB Tank #1 [now referred to as the Coated Holding Tank] and CB Tank #2, or from the New ZSC Holding Tank. The ZSC Holding Tank will store talc that has been coated with Zinc Stearate in the FEM system. Particulate emissions from the ZSC Holding Tank will be controlled by a baghouse.

Equipment in the coated product packaging system included a Coated Product Packaging Feed Bin now referred to as the Coated Densifier Feed Bin, two Densifiers, a Packer Bin, and three Packers. Particulate emissions from the coated product packaging system are to be controlled by a baghouse on the Coated Product Packaging Feed Bin. For industrial hygiene purposes, two Airwalls will be installed. One will be installed at the packers and the other near the bag cleaning area to filter ambient air in the immediate area. In addition, a new vacuum system will be installed. Particulate emissions from the vacuum System #4 will be controlled by a vacuum-rated baghouse. The changes proposed in Permit Application #2282-05 will result in an increase in allowable emissions of approximately 10.8 tons per year of PM₁₀ and 39.0 tons per year of VOCs. The testing requirements were also clarified to specifically state testing included both opacity and particulate matter (PM).

Luzenac submitted written comments on March 22, 1999, on the preliminary determination. Luzenac commented that 40 CFR 60, Subpart OOO states that a 7% opacity limit is the only emission limit set for a baghouse that controls emissions from only an individual, enclosed storage bin (40 CFR 60.672(f)). The Department of Environmental Quality (Department) removed the particulate testing requirements for the FEM Holding Tank, ZSC Tank, CB Tank #1 and #2 prior to final permit. Luzenac will still be required to conduct opacity testing. The Department retained the particulate matter limit of 0.02 gr/dscf for the FEM Holding Tank, ZSC Holding Tank, CB Tank #1 and #2; however, initial testing was not required.

On July 21, 1999, the Department received a request from Luzenac to remove testing requirements for:

- The 66" Roller Mill System
- The three Roller Mill Storage Bins (#1-V1551, #2-V1552, and #3-V1553)
- The three MV Storage Bins (#1-V1501, #2V-1502, and #3-V1503)
- The four Product Silos (#4-v404, #5-V405, #6-V406, and #7-V407)

Because the units are all considered process equipment, all have very low emissions and some have successfully demonstrated compliance in the past, the Department agreed to remove the testing for these units. The permitting action was done as a modification as the emissions will not change or increase as a result of this action.

This modification incorporated the newly submitted information concerning the design modification for the new coating, storage and packaging system. The design modifications included:

- CB Tank #1 now referred to as the Coated Holding Tank
- CB Tank #2 will not be constructed as part of the project, but Luzenac would like to leave it in the permit, as it may be constructed at a later date
- Coated Product Packaging Feed Bin as now referred to as the Coated Densifier Feed bin, this baghouse will not be used to control emissions from the packer bin and packers as originally permitted. The Coated Packer Bin will instead be vented by the existing Re-run Fugitive Collector, which will be refurbished and relocated. This baghouse will also provide primary dust control for the bagging operations through pick-up points near the packer spouts, and will provide dust control for a reject bag rerun hopper
- Spillage from the packaging operation will be collected and returned to the plant's existing Central Reclaim System, as will material recycled through the reject bag rerun hopper

The design changes will result in overall reduced emissions from the new processes. The reduction in emissions as a result of the design modifications will reduce the emissions by 1.8 tons per year.

The modification also included the addition of the 20-ton semi-bulk bag fill bin #4 for improved material handling of the semi bulk bag fill system. This additional bin was added under ARM 17.8.705(1)(r) and, therefore, did not require a permit, but is added to the permit at this time for clarification purposes. Permit #2282-06 replaced Permit #2282-05.

On September 21, 1999, the Department received a request from Luzenac to remove testing requirements for the Roller Mill Packers. The Department agreed with this change because the Roller Mill Packers are vented inside the mill building. Permit #2282-07 replaced Permit #2282-06.

On November 18, 1999, the Department received a request for a de minimis determination for the installation of a vacuum-rated baghouse, which will be used to move coated talc from the Ward Mill under negative pressure to the Coated Holding Tank. Originally, Luzenac had planned to use a rotary airlock feeder and positive pressure to convey the coated talc from the Ward Mill; however, the system proved to be inadequate upon startup.

As a result of this new system, it will no longer be necessary to vent the Ward Mill back to the coating system feed bin as proposed in the original design. The new vacuum-rated baghouse, referred to as the Coated Product Conveying Collector, will be an IAC Model No. 54TB-FRIP-21:S6 Pulse Jet Filter, venting approximately 750 acfm of air through 21 bags at a 5.2:1 air to cloth ratio. The increase in emissions resulting from this new baghouse, which will ultimately be used as process equipment for conveying purposes, are 0.56 tons per year (tpy) of PM₁₀. Because the increase in emissions is below the 15-tpy threshold for de minimis, and the change does not conflict with existing limitations within the permit, the Department agrees that this change at the facility is a de minimis change. Permit #2282-08 replaced Permit #2282-07.

On February 4, 2000, the Department received, from Luzenac, a revised request for a de minimis determination and modification of Permit #2282-08 for the installation of a new vacuum-rated baghouse referred to as the Coarse Powder Conveying Collector (IAC Model No. 54TB-FRI-14:S6 pulse jet filter). The request was revised from a previous permit modification request, containing incorrect information, submitted to the Department on January 26, 2000. The Coarse Powder Conveying Collector would have the capacity to vent up to 700 acfm of air through 14 bags at a 7.8:1 air-to-cloth ratio.

The Coarse Powder Conveying Collector would be utilized as a process application (pneumatic conveyor) to convey talc from the Coarse Powder Bulk Bag Packing Bin (V2080) under negative pressure. Because the Coarse Powder Conveying Collector would be utilized as a process application and not as a pollution control device, the de minimis determination was made using maximum uncontrolled emission calculations with the baghouse in place. The potential emissions from the proposed Coarse Powder Conveying Collector are less than 15 tpy. Therefore, the addition of the baghouse complies with ARM 17.8.705(1)(r) and this permit action was considered a permit modification.

The Coarse Powder Conveying Collector was subject to new source performance standards (NSPS) under 40 CFR Part 60, Subpart OOO. Because the baghouse would vent exclusively inside the mill building, Luzenac requested that the Department evaluate and remove the requirement for initial Method 5 and Method 9 source testing, for the purpose of demonstrating compliance.

Further, on February 8, 2000, the Department received a separate request for modification of Air Quality Permit #2282-08. The modification request involved the removal of testing requirements for other process equipment subject to 40 CFR 60, Subpart OOO. During a review of construction progress at the Three Forks Mill, Luzenac discovered that several stacks requiring initial Method 5 and/or Method 9 source testing vent exclusively within the mill with no associated outdoor emissions. As with the Coarse Powder Conveying Collector described previously, because the affected equipment vents exclusively to the indoor mill environment, Luzenac requested that the initial source testing requirements be removed from the following list of NSPS affected process equipment:

- Coated Densifier Feed Bin (V1980)
- Coarse Powder Bulk Bag Packer Bin (V2080, Formerly the 20 ton Semi-Bulk Bag Fill Bin #4)
- Coating System Feed Bin (V1880)
- Coated Packer Bin (V1900)
- Coated Product Conveyor Collector

40 CFR 60, Subpart OOO, does not contain any provisions to exempt a source from initial source testing requirements. Further, 40 CFR 60 does not contain provisions to waive performance source testing on the sole basis of indoor venting of emissions. However, the “Administrator” or administrative authority, as defined in 40 CFR 60.8, can waive the requirement for initial performance source testing on a case-by-case basis. Through source testing, Luzenac has demonstrated to the Department’s satisfaction that similar emission sources within the talc mill have been consistently in compliance and, thus, at the “Administrator’s” discretion, met the criteria for initial source testing waiver under 40 CFR 60.8(b)(4).

Therefore, the question was whether the Department is the “Administrator” and has administrative authority to waive the initial source testing requirements for the above-cited equipment under 40 CFR 60.8. In accordance with current Department guidance regarding this issue, the Department must acquire formal EPA approval prior to issuance of the waiver.

Therefore, in a letter dated March 6, 2000, the Department requested a formal determination from EPA regarding this issue. The Department did not waive the initial source testing requirement for the above-cited 40 CFR 60, New Source Performance Standards (NSPS) affected sources, pending EPA’s response and formal determination regarding this issue. In a letter to EPA, the Department requested administrative authority and included that if the Department did not receive a determination from EPA, it would be assumed that EPA agrees with the source testing waiver and has given the State of Montana administrative authority to formally waive the initial source testing as described above. The Department did not receive a response from EPA and thus assumed administrative authority and waived NSPS testing as described above.

As defined in Section II.A.15 and II.A.16 of this permit, because the Coated Product Conveying Collector (baghouse) and the Coarse Powder Conveying Collector (baghouse) are utilized to convey talc from individual enclosed storage bins, the sources are subject to opacity limits, but not particulate limits as defined in 40 CFR 60, Subpart OOO.

Finally, the current permit action changed the name of the 20-ton Semi-Bulk Bag Fill Bin #4 to the Coarse Powder Bulk Bag Packer Bin (V2080). Permit **#2282-09** replaced Permit #2282-08.

On April 18, 2000, the Department received a request for a de minimis determination and modification of Permit #2282-09. The proposed action involved utilizing the baghouse venting the Powder Bulk Bag Storage Bin (V1390) to recover talc lost during packaging in the Coated Product portion of the Luzenac plant. To facilitate this, Luzenac utilized an existing (unused) duct, extended from the Powder Bulk Bag Storage Bin baghouse (V1390) to the Coated Product Packaging hopper. Previously, talc spilled during bag filling operations was collected in the hopper and removed by an educator. In a previous permit action, Luzenac permitted a Coated Product Packaging Airwall to recover secondary fugitive dust in the packaging area.

However, in an effort to minimize noise and other industrial hygiene related concerns, the changes under Permit **#2282-10** replaced the previously permitted Coated Product Packaging Airwall and eliminated the need for the educator on the hopper. Finally, because the baghouse previously utilized to vent the Powder Bulk Bag Storage Bin (V1390) now vents the Coated Product Packaging operation, Luzenac re-furnished and re-installed the Twin Bin Vent baghouse, which was removed from service in 1999, to vent the Powder Bulk Bag Storage Bin. In addition, the name of the former Powder Bulk Bag Storage Bin (V1390) baghouse was changed to the Coated Product Packaging baghouse and the name of the former Twin Bin Vent baghouse was changed to the Powder Bulk Bag Storage Bin baghouse.

In addition to the above-cited request, the permit action also involved stack modifications for the Coated Product Packaging baghouse and the new Powder Bulk Bag Storage Bin Baghouse. These stacks, initially installed to vent within the mill building, were extended through the walls to vent to the outdoor atmosphere. Again, this change was made to reduce industrial hygiene and other safety concerns.

Further, on July 1, 2000, the Department received a separate de minimis determination and request for modification of Permit #2282-09. This request involved installing a baghouse (product collector) on one of the Crude Load-Out hoppers and the Plant Feed hopper, which were previously uncontrolled emission points. The Crude Load-Out baghouse controls emissions from two sources, including the Crude Load-Out Hopper and stockpiling in the Dry Bay, and the Plant Feed baghouse controls emissions from the Plant Feed Hopper only.

Potential emissions from the project, as a whole, were less than 15 tpy. Therefore, addition of the Coated Product Packaging baghouse, the new Powder Bulk Bag Storage Bin baghouse, the Crude Load-Out baghouse, and the Plant Feed baghouse were accomplished in accordance with ARM 17.8.705(1)(r) and the permit action was considered a permit modification. Potential emission calculations for this permitting action are contained in the emission inventory in Section III of the Permit Analysis for Permit #2282-10.

It was determined that the Coated Packaging Recovery Collector (baghouse) is subject to NSPS under 40 CFR Part 60, Subpart OOO. Further, it was determined that the Powder Bulk Bag Storage bin collector (baghouse) is not an affected facility and therefore, is not subject to 40 CFR Part 60, Subpart OOO. Finally, the baghouses controlling fugitive emissions from the Crude Load-Out and Plant Feed hoppers are not subject to NSPS, as they are exempt pursuant to 40 CFR 60.672(d). Permit #2282-10 replaced Permit #2282-09.

Title V Operating Permit History

On May 26, 2000, the Department issued final and effective Title V Operating Permit **#OP2282-00** for talc manufacturing processes at the Luzenac Three Forks Mill.

On October 18, 2002, the Department received a complete application from Luzenac for a significant modification to Operating Permit #OP2282-00. Specifically, Luzenac requested a relaxation of testing requirements for all 40 CFR Part 60, Subpart OOO (NSPS), affected units. Under the permit action, Luzenac proposed to change the existing testing schedule for NSPS affected sources from an every 4-year test schedule to an every 5-year test schedule.

In accordance with the Department's "Revised Testing Schedule" guidance (December 4, 1998), after the required initial compliance source test, NSPS affected sources with the potential to emit (PTE) less than 50 tons per year shall be tested, "as required by the Department".

Because numerous baghouses and bin vents at the Luzenac facility are considered process equipment rather than control equipment, calculation and determination of the PTE from these sources is based on the grain loading control factor of the process baghouse or bin vent associated with the NSPS affected source. Using the grain loading control factor of 0.02 grains per dry standard cubic foot (NSPS limit) results in a calculated PTE of less than 50 tons per year for each NSPS affected process baghouse and/or bin vent at the Luzenac facility. Therefore, in accordance with the Department's "Revised Testing Schedule" the Permit Action #OP2282-01 modified Luzenac's testing schedule for NSPS affected sources from required testing on an every 4-year schedule to testing "as required by the Department" for all NSPS affected units. The affected units remained subject to initial source testing requirements, unless otherwise noted.

In addition to the above-cited testing schedule change, the proposed modification incorporated all applicable source changes since issuance of Operating Permit #OP2282-00. These changes include the addition of several units permitted under Luzenac's preconstruction permit in accordance with ARM 17.8.705(1)(r), the de minimis rule. Since issuance of Operating Permit #OP2282-00, Luzenac has not installed or operated any equipment which meets the definition of a significant emitting unit under the Title V Operating Permit program.

Further, Luzenac proposed the removal of the requirement allowing only one type of product packaging at the facility. The condition limited Luzenac to packaging only one type of product at any given time in the automated packaging system and the condition was established under Montana Air Quality Permit (MAQP) #2282-01. Based on review of the permit action and analysis conducted for MAQP #2282-01, the Department determined that the condition was inappropriately included in the permit. The Permit Analysis for MAQP #2282-01 analyzed all automated packaging system equipment operating at capacity and packaging multiple different products and included an air dispersion modeling demonstration of compliance with applicable standards. Therefore, the Department removed the requirement that limited Luzenac to packaging only one product type in the automated packaging system.

In addition, On May 20, 2003, the Department received notification of a change (delegation of authority) in the Responsible Official (RO) for the Luzenac facility. The previous RO, Stephen S. Mauney, Vice President of Operations, delegated the Facility Manager, Tod Biebold, as the authorized representative for Title V Operating Permit actions at the facility.

Finally, various sections of the permit were updated and/or modified to reflect current Department Title V Operating Permit language and format. Operating Permit #OP2282-01 replaced Operating Permit #OP2282-00.

As required under ARM 17.8.1205(d), on November 19, 2004, Luzenac submitted to the Department an application for Title V Operating Permit renewal. Since issuance of Permit #OP2282-01, there were no significant modifications to permitted operations at the Luzenac facility. This permit action renewed Luzenac's Title V Operating Permit. Permit #OP2282-02 replaced Permit #OP2282-01.

D. Current Permit Action

On February 13, 2007, the Department received notification of designation of a duly authorized representative to perform the duties and act as the responsible official for the Luzenac Title V Operating Permit #OP2282-02. In accordance with the definition of *administrative amendment* contained in the Administrative Rules of Montana (ARM) 17.8.1201(1), a change in the responsible official currently named in the affected Title V Operating Permit requires an administrative change to the affected Title V Operating Permit. The current administrative permit action changes the responsible official from Tod Diebold to Ken Holsten.

In addition, the Department determined that a stationary ore-unloading ramp and associated equipment identified during a facility inspection on December 7, 2006, constitutes an insignificant emitting unit (potential to emit less than 5 tons per year) under the Title V Operating Permit. Therefore, the Department added the affected unit to the list of insignificant emitting units under the current permit action. Permit #OP2282-03 replaces Permit #OP2282-02.

E. Taking and Damaging Analysis

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of

private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an Operating Permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications. The checklist was completed on February 15, 2007.

F. Compliance Designation

The Luzenac facility was last inspected on December 7, 2006. At the time of inspection, the facility was found to be in violation of ARM 17.8.745(1) and ARM 17.8.1224(1)(e) for the installation and operation, without notification, of a new stationary railcar ore-unloading ramp and associated equipment. The Department determined that the stationary ore-unloading ramp and associated equipment constitutes an insignificant emitting unit (potential to emit less than 5 tons per year) under the Title V Operating Permit. Consequently, under the current permit action, the Department added the affected unit to the list of insignificant emitting units.

Further, on December 27, 2006, the Department received notification of designation of a duly authorized representative to perform the duties and act as the responsible official for the Luzenac Title V Operating Permit. However, the required notification was submitted under signature of a Responsible Official not named in Luzenac's Title V Operating Permit #OP2282-02. In accordance with the definition of *administrative amendment* contained in ARM 17.8.1201(1), a change in the Responsible Official currently named in the affected Title V Operating Permit requires an administrative change to the affected Title V Operating Permit. Prior to the current permit action the Department had not received notification of a change in Responsible Official or a request for an administrative amendment to accommodate the change. The current permit action changes the responsible official as required.

The Department decided not to pursue any formal enforcement action pursuant to the above-cited violations and considers these violations resolved. At the time of inspection the Department determined that Luzenac was in compliance with all other applicable requirements.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

Talc and chlorite ore is hauled to the plant by truck and rail car. The ore is crushed to produce a product that is 44 to 149 micrometers in size. Further grinding is required to meet specifications from customers. This milling takes place through roller mills, air classifying mills, and fluid energy mills. The air classifiers size the product. In 1999, Luzenac installed additional equipment and constructed additional units to incorporate a new Amino-Silane coating system and coated product packaging system.

The final product may be purchased from the facility in powder form or in pellets. In the pelletizing step, processed material is mixed with water to form a paste and then extruded as pellets. Natural gas fired pellet dryers dry these pellets. The final product is shipped from the facility in bagged or bulk form.

Luzenac also crushes raw material to be shipped to other facilities for processing. This ore may be dried to remove moisture if necessary.

The primary pollutant of concern is PM₁₀. PM is emitted from crushing, grinding, drying, classifying, material handling, and transfer operations, packaging and storage. Although pelletizing is a wet process, PM₁₀ may be emitted from the transfer and feeding of processed material to the pellet mills. The ore process at this facility does not contain hazardous air pollutants (HAPs).

Emissions from dryers include products of natural gas combustion, such as carbon monoxide, nitrogen oxides, volatile organic compounds (VOC), and sulfur oxides, in addition to filterable and condensable PM.

PM₁₀ emissions from sources at this facility are controlled with fabric filter baghouses. Fabric filters also are used to control emissions from mechanical processes such as crushing and grinding. Generally, material collected in the baghouses is put back into the system however a small percentage of material collected by the various vacuum systems is bagged and disposed of as waste.

B. Emission Units and Pollution Control Device Identification

Emitting Unit ID	Emitting Unit	Pollution control device	NSPS
EU001	Boiler 1	None	NA
EU002	Boiler 2	None	NA
EU003	Primary crusher – RC025	Fabric filter baghouse	NA
EU003	Secondary crusher – RC035	Fabric filter baghouse	NA
EU003	Belt conveyors – C030, C040, C050, C060	Fabric filter baghouse	NA
EU003	Bucket elevator – E045	Fabric filter baghouse	NA
EU003	60” Roller mill – M104	Fabric filter baghouse	NA
EU003	60” Roller mill feed bin – V180	Fabric filter baghouse	NA
EU003	54” Roller mill – M204	Fabric filter baghouse	NA
EU003	54” Roller mill feed bin – V280	Fabric filter baghouse	NA
EU003	FEM 1 – F807	Fabric filter baghouse	NA
EU003	FEM 1 feed bin – V880	Fabric filter baghouse	NA
EU003	FEM 1 cooling collector – F811	Fabric filter baghouse	NA
EU003	FEM 2 – F907	Fabric filter baghouse	NA
EU003	FEM 2 feed bin – V980	Fabric filter baghouse	NA
EU003	FEM 2 cooling collector – F911	Fabric filter baghouse	NA

EU003	Powder bulk bag packer bin – V1380	Fabric filter baghouse	NA
EU003	Powder bulk bag storage bin – V1390	Fabric filter baghouse	NA
EU003	Pellet mill feed bin – V380	Fabric filter baghouse	NA
EU003	Natural gas pellet dryer 1 – C307	Fabric filter baghouse	NA
EU003	Natural gas pellet dryer 2 – C313	Fabric filter baghouse	NA
EU003	Air pellet dryer 3 – C315	Fabric filter baghouse	NA
EU003	CMV packer bin – V384	Fabric filter baghouse	NA
EU003	CMV direct bulk bag packers – C319	Fabric filter baghouse	NA
EU003	Silo 1 – V401	Fabric filter baghouse	NA
EU003	Silo 2 – V402	Fabric filter baghouse	NA
EU003	Silo 3 – V403	Fabric filter baghouse	NA
EU003	Silo 8 – V408	Fabric filter baghouse	NA
EU003	Silo 9 – V409	Fabric filter baghouse	NA
EU003	Silo 10 – V410	Fabric filter baghouse	NA
EU003	Silo 11 – V411	Fabric filter baghouse	NA
EU003	Vacuum system 2 – V1576	Fabric filter baghouse	NA
EU003	Plant feed hopper baghouse	Fabric filter baghouse	NA
EU003	Plant feed hopper & conveyor – SF015, C020	None	NA
EU003	Product classifier feed bin – F1701, F1702	Fabric filter baghouse	NA
EU004	Vacuum system 3 – V1374	Fabric filter baghouse	OOO
EU004	66" Roller mill – M504	Fabric filter baghouse	OOO
EU004	66" Roller mill feed bin – V580	Fabric filter baghouse	OOO
EU004	(3) Roller mill packers - PK1554A,B,C	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 1 – V1551	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 2 – V1552	Fabric filter baghouse	OOO
EU004	Roller mill storage bin 3 – V1553	Fabric filter baghouse	OOO
EU004	Roller mill packer bin – V1554	Fabric filter baghouse	OOO
EU004	Coarse powder conveying collector – V2015	Fabric filter baghouse	OOO
EU004	Coarse powder bulk bag packer bin – V2080	Fabric filter baghouse	OOO
EU004	ACM 3 – V1140	Fabric filter baghouse	OOO
EU004	ACM 3 feed bin – V1180	Fabric filter baghouse	OOO
EU004	(4) MV packers – PK1504A,B,C,D	Fabric filter baghouse	OOO
EU004	MV storage bin 1 – V1501	Fabric filter baghouse	OOO
EU004	MV storage bin 2 – V1502	Fabric filter baghouse	OOO
EU004	MV storage bin 3 – V1503	Fabric filter baghouse	OOO
EU004	MV packer bin – V1504	Fabric filter baghouse	OOO
EU004	CMV packer bin – V1594	Fabric filter baghouse	OOO
EU004	(3) CMV packers – PK1596A,B,C	Fabric filter baghouse	OOO
EU004	Silo 4 – V404	Fabric filter baghouse	OOO
EU004	Silo 5 – V405	Fabric filter baghouse	OOO
EU004	Silo 6 – V406	Fabric filter baghouse	OOO
EU004	Silo 7 – V407	Fabric filter baghouse	OOO
EU004	Packing room fugitive collector – V1584	Fabric filter baghouse	OOO
EU004	Crude load-out crusher – RC062	Fabric filter baghouse	OOO
EU004	Crude load-out conveyors – C061, C063, C066, C076, C077	Fabric filter baghouse	OOO
EU004	Crude load-out bucket elevator – E064	Fabric filter baghouse	OOO
EU004	Crude load-out spout – H066	Fabric filter baghouse	OOO
EU004	Product classifier – F1760	Fabric filter baghouse	OOO
EU004	FEM holding tank – V412	Fabric filter baghouse	OOO
EU004	ZSC holding tank – V414	Fabric filter baghouse	OOO
EU004	Coated holding tank – V413	Fabric filter baghouse	OOO
EU004	Coated packer bin – V1900	Fabric filter baghouse	OOO
EU004	Coating system feed bin – V1880	Fabric filter baghouse	OOO
EU004	(3) Coated packers – PKR1904A,B,C	Fabric filter baghouse	OOO
EU004	Coated densifier feed bin – V1980	Fabric filter baghouse	OOO
EU004	Coated product conveying collector – V1850	Fabric filter baghouse	OOO

EU004	Coated Packaging Recovery Collector – V199	Fabric filter baghouse	OOO
EU004	Portable railcar feeder/conveyor	None	OOO
EU004	Crude load-out feed hoppers & conveyor – SF060, SF073, C074	None	OOO
EU004	Crude load-out crusher hopper baghouse	Fabric filter baghouse	OOO
EU005	ACM 1 – V640	Fabric filter baghouse	NA
EU006	ACM 1 feed bin – V680	Fabric filter baghouse	NA
EU007	ACM 2 – V740	Fabric filter baghouse	NA
EU008	ACM 2 feed bin – V780	Fabric filter baghouse	NA
EU009	CMV product silo 1 – V382	Fabric filter baghouse	NA
EU010	CMV product silo 2 – V383	Fabric filter baghouse	NA
EU011	FEM 1 classifier – F817	Fabric filter baghouse	NA
EU012	FEM 2 classifier – F917	Fabric filter baghouse	NA
EU013	Reclaim collector – V1354	Fabric filter baghouse	NA
EU014	RM/CMV truck load-out bin/spout – V1304	Fabric filter baghouse	NA
EU015	RM rail load-out bin – V1305	Fabric filter baghouse	NA
EU015	CMV rail load-out surge bin/spout – V381	Fabric filter baghouse	NA
EU016	Vacuum system 4 – V2110	Fabric filter baghouse	NA
EU017	Crude load-out dryer – C075	Fabric filter baghouse	UUU
EU018	Haul roads	Water/Chemical	NA
EU018	Ore storage (outdoor)	Water/Chemical	NA
EU018	Ore storage (indoor)	Water/Chemical	NA
EU018	Access roads or general plant property	Water/Chemical	NA
EU018	LPG Exhaust	None	NA
EU018	Diesel exhaust	None	NA
EU018	Truck Unloading	None	NA
EU018	Ore Handling (plant)	None	NA
EU018	Ore Handling (load-out)	None	NA
EU018	Haul trucks	None	NA
EU018	Light vehicles	None	NA
EU018	Loaders	None	NA
EU019	Pallet conveyor airwall – AW1926	Airwall	NA
EU020	Amino-Silane	NA	NA
EU021	Fabric Filter Baghouse Control	Fabric Filter Baghouse	NA

C. Categorically Insignificant Sources/Activities

As defined in the Administrative Rules of Montana ARM 17.8.1201, “insignificant emissions unit” means (i) any activity or emissions unit located within a source that has a potential to emit less than five tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to Section 112(b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to this subchapter. The following units constitute insignificant emitting units (IEU).

Emitting Unit ID	Emitting Unit
IEU001	Coated Packaging Densifier #1
IEU002	Coated Packaging Densifier #2
IEU003	Powder Bulk Bag Densifier #1
IEU004	Powder Bulk Bag Densifier #2
IEU005	Diesel Tank
IEU006	Building Vents (6)
IEU007	Gasoline Exhaust
IEU008	Stationary Ore-Unloading Ramp and associated equipment

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

All emission limits and standards in this Title V Operating Permit are derived from Luzenac's Montana Air Quality Permit #2282-12. There are no other outstanding documents containing additional requirements pertaining to air quality.

NSPS (40 CFR 60, Subpart OOO) applies to some of the units at this facility. NSPS, Subpart UUU applies to the Rotary Dryer. Requirements for particulate and opacity have been applied to non-NSPS units through general conditions and Best Available Control Technology (BACT).

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance do not require the permit to impose the same level of rigor for all emission units. Furthermore, they do not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for a insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

Monitoring in Permit #OP2282-01 is generally achieved by visual surveys, inspection, and maintenance logging requirements. However, some testing is also required.

C. Test Methods and Procedures

The Operating Permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

Method 9 - opacity testing on a semiannual basis or weekly visual surveys in lieu of semiannual testing and Method 5 - PM testing "as required by the Department" has been applied to Luzenac to monitor compliance for various sources at the Three Forks Mill.

D. Recordkeeping Requirements

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least 5 years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emission unit and Section V of the Operating Permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limits and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with the requirements contained in ARM 17.8.1225, the current permit action constitutes an administrative amendment and does not require public notice.

SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS

The following table contains facility wide applicable requirements of which Luzenac requested a shield, however, after reviewing the rules, the Department determined these rules do apply and supplied the reason for applicability. Luzenac did not request a permit shield for any specific emitting units

Rule Citation	Reason
40 CFR 50 40 CFR 51 40 CFR 53 40 CFR 58 40 CFR 71	Although these rules contain requirements for the regulatory authorities and not major sources, these rules can be used as authority to impose specific requirements on major sources.
40 CFR 52 40 CFR 62 40 CFR 70	These rules contain specific requirements that may or may not be relevant to major sources.
40 CFR 61, Subpart M	This rule is a procedural rule that has specific requirements that may become relevant to a major source during the permit span.
ARM 17.8.120 ARM 17.8.504 ARM 17.8.514 ARM 17.8.515 ARM 17.8.611 ARM 17.8.612 ARM 17.8.828	These rules are procedural rules that have specific requirements that may become relevant to a major source during the permit span.
ARM 17.8.204 ARM 17.8.315 ARM 17.8.326	These rules always apply to a major source and may contain specific requirements for compliance
ARM 17.8.330 ARM 17.8.701 ARM 17.8.901 ARM 17.8.1001 ARM 17.8.1106	These rules consist of either a statement of purpose, applicability statement, regulatory definitions or a statement of incorporation by reference. These types of rules do not have specific requirements associated with them; however, the Department never shields these rules.
ARM 17.8.825 ARM 17.8.826	Although these rules contain requirements for the regulatory authorities and not major sources, these rules can be used as authority to impose specific requirements on major sources.

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards

As of February 28, 2007, the Department is not aware of any MACT standards that are or will be applicable to this facility.

B. NESHAP Standards

As of February 28, 2007, the Department is not aware of any NESHAP standards that are or will be applicable to this facility. However, Subpart M, is always applicable to the facility.

C. NSPS Standards

Currently, Luzenac must comply with certain NSPS standards. Subpart OOO is applicable to Non-metallic Mineral Processing Plants constructed, reconstructed, or modified after August 31, 1983, with production capabilities of 25 tons/hour or more. Subpart UUU is applicable to the Rotary Dryer.

D. Risk Management Plan

As of February 28, 2007, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.